REMARKS/ARGUMENTS

By the foregoing amendment, claims 10 and 18 have been amended to cure the rejection based on 35 U.S.C. 112 by changing the word "block" to "body" which has appropriate antecedent basis. Accordingly the amendments to those claims are believed to cure the rejection based on 35 U.S.C. §112. Claim 14 has been cancelled and claim 16 has been rewritten in independent form. Claim 15 has been amended to depend from claim 16. Because claim 16 was previously indicated allowable, it is therefore believed that claim 16 and claim 15 and 17-20 dependent thereon should also now be formally allowed. Additionally, claim 22 has been added dependent upon claim 16 and therefore is believed allowable with claim 16. Claim 21 has been added dependent upon claim 1 and thus the claims remaining for consideration are claims 1-7.

The rejection of claims 1-4 as anticipated by Bintz U.S. patent No. 5,639,211 is respectfully traversed. As the Examiner may recall, the present invention is directed to a damper system which dampens vibratory movement of the shroud. The damping system includes a damper block having at least three projections, e.g. projections 20a, 20b and 20c illustrated in Figure 3 raised from a surface of a damper block and engaging a back side surface of a shroud, e.g., shroud 12 in Figure 1. The damping mechanism 30 is carried by a shroud body, e.g. body 10 and is connected to the damper block for applying a load to the damper block and the shroud through the projections with the back side surface of the shroud to damp vibratory movement of the shroud. In Bintz, the W-shaped spring provides for friction damping of the stator (column 3, line 37). It does not provide friction damping of a shroud. This becomes even more clear when reference is made to U.S. patent No. 5, 346,362 noted at column 1, line 20 and column 3, line 39 in the Bintz patent. For example, see the abstract of the '362 patent which states that the

E-shaped damper, i.e. the spring 12 in Bintz provides "damping of the compressor stator of a gas turbine engine". Thus the damping action in Bintz is of the stator not of the shroud.

Further, the claimed damper system includes a damper block having at least three projections raised from a surface thereof and engaging a back side surface of the shroud. Applicants submit that the Examiner is taking certain liberties in interpreting the claimed three projections on the damper block and finding corresponding structure in Bintz. The Examiner identifies three projections 30/28, 26/24/44, and the left most end of element 16. First, element 16 is not a damper block. Element 16 is the inner band of a compressor stator segment which mounts a pair of hooks, i.e. a female hook 24 and a male hook 28. These hooks are not carried by a damper block since element 16 is not a damper block and does not function as a damper block. Secondly, the hooks 24 and 28 are not the claimed at least three projections since there are only two hooks. The liberty taken by the Examiner in identifying the left most end of element 16 is not well taken since element 16 does not engage the back side of the shroud and in any event is not part of a damper block. The Examiner states that element 16 is readable as a damper block in that it supports and thus effectively damps the outer shroud block 20 is likewise not well taken since in order for one part to damp another part they must have relative motion. Parts 16 and 20 are integral. Thus claim 1 clearly distinguishes from Bintz in requiring three projections, three projections on a damper block and a damping mechanism which applies a load to a damper block and a shroud through engagement of the projections to dampen vibratory movement of the shroud. Bintz does not dampen vibratory movement of the shroud nor provide the various structural elements noted above to dampen vibratory movement of a shroud. Again, shroud 14 in Bintz may dampen vibratory movement of the stator 18 but there is no indication

that the reverse is true in Bintz and certainly there is no correspondence between the claimed projections and their location and function as claimed.

Moreover, claim 1 requires a shroud having a first surface defining in part a hot gas path through the turbine. In common turbine parlance a hot gas path means the flow of gas through the stator vanes and the blades of the rotor of a turbine. In common parlance it does not refer to a gas leakage path between the inner portions of the stator blade, i.e., an inner band and the rotor 36 as in Bintz which is sealed by the brush seal. Thus the Examiner's reference to a shroud 14 "having a first surface defining in part a hot gas path through the turbine" does not accurately reflect the claimed hot gas path and which does not correspond to the leakage path defined by the Examiner.

In this latter respect, claim 21 has been added dependent upon claim 1 and more particularly defines the location of the hot gas path and the shroud in relation to the rotating components, i.e., the turbine blades. That relation is not disclosed in Bintz.

Referring to the claim 2, the location of the projections is significant. As stated on page 5, middle paragraph of the application, the location of the projections 20 are dependent upon the system dynamic response which is determined by the system natural frequency vibratory response through testing and analysis. In short, the shroud is tuned by the existence and location of the projections to minimize vibratory response from the pressure pulses in the hot gas path as the blades pass the shroud. While it is true that the hooks 24 and 28 are spaced axially one from the other, they do not correspond to the claimed three projections nor to the claimed two projections lying adjacent the forward edge of the damper block surface. It will be appreciated that the hook 24 is a continuous arc in a circumferential direction and does not comprise discrete projections or discrete hooks. Thus claim 2 clearly is not anticipated by Bintz.

Claim 3 is more specific with respect to the location of the two projections symmetrically on opposite sides of the damper block and the third projection which is asymmetric relative to the opposite sides. At the top of page 4 the Examiner states that two projections 30/28 and 26/24/44 lie adjacent the forward edge of the damper block surface. In Bintz, with the air flow through the compressor stator 18 is from left to right in Figure 1. These two so-called projections hardly lie at the forward edge of a damper block since 30/28 lies to the rear of the stator vane. Moreover, the left edge of element 16 is not at the rearward edge of the so-called damper block. Nor is it asymmetrically located since it is a continuous circumferentially extending edge. With respect to claim 4, and as noted previously, element 16 is not a damper block and consequently nothing in Bintz responds to the claimed space between the shroud and the damper block to provide a thermal insulating layer.

The rejection of claim 5 based on a combination of Bintz in view of McGrath U.S. patent No. 5,639,211 is respectfully traversed for the reasons noted above in connection with Bintz.

The rejection of claims 6 and 7 as unpatentable over Bintz is respectfully traversed for the reasons noted above. Additionally, the Examiner acknowledges that Bintz does not disclose as part of a damping mechanism a piston in conjunction with a spring. Nonetheless the Examiner states that it would have been obvious to "have constructed the biased member of Bintz to be a piston as an alternate means of applying a load to the damper block". This statement is made without any evidence in the prior art in support of the statement. The Examiner goes further, however, stating that "As long as some structure can act to apply the load to the damper block through the effects of the spring, the means used to do so is arbitrary", This statement likewise is speculative and conjectural. There is no evidence of record to support statements of this type. As the Examiner is well aware, there must be some teaching or

suggestion in the prior art and the Examiner has not alluded to any such teaching or suggestion in the prior art for the conclusion that a person of ordinary skill in the art would obviously have employed a piston in Bintz. Should this rejection continue, the Examiner is requested to identify the evidence in the prior art in support of the rejection rather than rely on conjecture and speculation. As to claim 7, the Examiner states that the cooling medium may reside in the air gap between elements16 and 14. That air gap, however, would be at the same temperature as the air flowing through the compressor and through the leakage path. In fact, there is no cooling medium disclosed in Bintz.

Applicants believe that the application is now in condition for allowance and early notification of the allowance thereof is respectfully requested.

Respectfully submitted,

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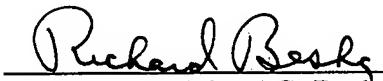
By: 

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